

## II. WASTEWATER CHARACTERIZATION, TREATMENT, and DISPOSAL

### B. SPECIFIC OUTFALL INFORMATION

#### EFFLUENT MONITORING REQUIREMENT – PRIMARY INDUSTRY PROCESS WASTEWATER

You are required to complete part C-1 through C-4 for each surface water outfall that discharges **process wastewaters, other than noncontact cooling water, from a primary industry**. You must sample the discharge and test for the parameters listed in Table C-1 under the headings "Common Pollutants" and "Metals, Cyanide, Hardness & Phenols." You are also required to test for the parameters under each of the remaining headings as specified for your industrial category in Table 4 of the instructions. If you have more than one discharge of primary industry process wastewater, you should have received a copy of this form for each outfall. (See the instructions if two or more outfalls discharge identical wastewaters.) If you test any parameter more frequently than required by Table C-1, use Table C-2 to report the results. **For testing not performed as part of routine, permit-required monitoring, please also attach laboratory reports.**

<b>C-1. EFFLUENT MONITORING FORM for Outfall _____ (see instructions)</b>														
<p>From Table 4 of the instructions, list below the industrial category or categories that contribute process wastewaters to the discharge from this outfall and place a check mark in the box of each pollutant group that you must test.</p> <p>Industrial Category _____</p> <p> <input type="checkbox"/> Volatile Organics     <input type="checkbox"/> Acid Extractable Compounds  <input type="checkbox"/> Base/Neutral Compounds     <input type="checkbox"/> Pesticides     <input type="checkbox"/> Dioxins and Furans         </p>														
<p>Were all effluent samples properly preserved and handled, and are they representative of normal operating conditions?</p> <p><input type="checkbox"/> Yes   <input type="checkbox"/> No. If no, please collect and test another discharge sample.</p>														
Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)
<b>COMMON POLLUTANTS</b>														
321	Ammonia Nitrogen (Submit a minimum of 4 sample results collected at least 1 month apart)			mg/L as N										
				mg/L as N										
				mg/L as N										
				mg/L as N										
66	BOD <sub>5</sub> (5-day Biochemical Oxygen Demand)			mg/L										

**C-1 (continued). EFFLUENT MONITORING REPORT FORM for Outfall \_\_\_\_\_ (see instructions)**

Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)
140	COD (Chemical Oxygen Demand)			mg/L										
105	Chlorides, Total			mg/L										
112	Chlorine, Total Residual			µg/L										
342	Oil and Grease			mg/L										
377	pH			s.u.										
388	Phosphorus, Total (723-14-00) (Submit a minimum of 4 sample results collected at least 1 month apart)			mg/L as P										
				mg/L as P										
				mg/L as P										
				mg/L as P										
457	Suspended Solids, Total			mg/L										
487	Temperature (summer)			°F										
488	Temperature (winter)			°F										
<b>METALS, CYANIDE, HARDNESS &amp; PHENOLS</b>														
31	Antimony, Total Recoverable (7440-36-0)			µg/L										
35	Arsenic, Total Recoverable (7440-38-2)			µg/L										
50	Beryllium, Total Recoverable (7440-41-7)			µg/L										
87	Cadmium, Total Recoverable (7440-43-9)			µg/L										
131	Chromium, Hexavalent			µg/L										
133	Chromium, Total Recoverable (7440-47-3)			µg/L										
147	Copper, Total Recoverable (7440-50-8) (Submit a minimum of 4 sample results collected at least 3 days apart)			µg/L										

**C-1 (continued). EFFLUENT MONITORING REPORT FORM for Outfall \_\_\_\_\_ (see instructions)**

Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)
				µg/L										
				µg/L										
				µg/L										
155	Cyanide, Total (57-12-5)			µg/L										
152	Cyanide, Amenable to Chlorination			µg/L										
264	Lead, Total Recoverable (7439-92-1)			µg/L										
280	Mercury, Total Recoverable (7439-97-6) (Submit a minimum of 3 sample results collected at least 3 days apart)			µg/L										
				µg/L										
				µg/L										
315	Nickel, Total Recoverable (7440-02-0)			µg/L										
423	Selenium, Total Recoverable (7782-49-2)			µg/L										
430	Silver, Total Recoverable (7440-22-4)			µg/L										
494	Thallium, Total Recoverable (7440-28-0)			µg/L										
553	Zinc, Total Recoverable (7440-66-6)			µg/L										
231	Hardness (as CaCO <sub>3</sub> ) (Submit a minimum of 4 sample results collected at least 3 days apart)			mg/L										
				mg/L										
				mg/L										
				mg/L										
382	Phenols, Total			µg/L										
<b>VOLATILE ORGANICS</b>														
6	Acrolein (107-02-8)			µg/L										

**C-1 (continued). EFFLUENT MONITORING REPORT FORM for Outfall \_\_\_\_\_ (see instructions)**

Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)
8	Acrylonitrile (107-13-1)			µg/L										
40	Benzene (71-43-2)			µg/L										
79	Bromodichloro-methane (dichlorobromo-methane) (75-27-4)			µg/L										
80	Bromoform (75-25-2)			µg/L										
93	Carbon Tetrachloride (56-23-5)			µg/L										
113	Chlorobenzene (108-90-7)			µg/L										
115	Chlorodibromo-methane (124-48-1)			µg/L										
117	Chloroethane (75-00-3)			µg/L										
118	Chloroform (67-66-3)			µg/L										
568	1,2-Dichloro-benzene (95-50-1)			µg/L										
581	1,3-Dichloro-benzene (541-73-1)			µg/L										
587	1,4-Dichloro-benzene (106-46-7)			µg/L										
556	1,1-Dichloroethane (75-34-3)			µg/L										
570	1,2-Dichloroethane (107-06-2)			µg/L										
558	1,1-Dichloro-ethylene (75-35-4)			µg/L										
567	<i>cis</i> -1,2-Dichloro-ethylene (159-59-2)			µg/L										
576	<i>trans</i> -1,2-Dichloroethylene (156-60-5)			µg/L										

**C-1 (continued). EFFLUENT MONITORING REPORT FORM for Outfall \_\_\_\_\_ (see instructions)**

Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)
573	1,2-Dichloro-propane (78-87-5)			µg/L										
583	1,3-Dichloro-propane (142-28-9)			µg/L										
560	1,1-Dichloro-propylene (563-58-6)			µg/L										
580	<i>cis</i> -1,3-Dichloro-propylene (10061-01-5)			µg/L										
585	<i>trans</i> -1,3-Dichloropropylene (10061-02-6)			µg/L										
598	2,3-Dichloro-propylene (78-88-6)			µg/L										
200	Ethylbenzene (100-41-4)			µg/L										
82	Methyl Bromide (bromomethane) (74-83-9)			µg/L										
120	Methyl Chloride (chloromethane) (74-87-3)			µg/L										
285	Methylene Chloride (dichloromethane) (75-09-2)			µg/L										
565	1,1,2,2-Tetra-chloroethane (79-34-5)			µg/L										
490	Tetrachloro-ethylene (127-18-4)			µg/L										
500	Toluene (108-88-2)			µg/L										
561	1,1,1-Trichloro-ethane (71-55-6)			µg/L										
563	1,1,2-Trichloro-ethane (79-00-5)			µg/L										
508	Trichloroethylene (79-01-6)			µg/L										
517	Vinyl Chloride			µg/L										

**C-1 (continued). EFFLUENT MONITORING REPORT FORM for Outfall \_\_\_\_\_ (see instructions)**

Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)
	(75-01-4)													
<b>ACID EXTRACTABLE COMPOUNDS (Phenols)</b>														
592	2-Chlorophenol (95-57-8)			µg/L										
614	3-Chlorophenol (108-43-0)			µg/L										
623	4-Chlorophenol (106-48-9)			µg/L										
616	2-Chloro-5-methylphenol (615-74-7)			µg/L										
597	2,3-Dichlorophenol (576-24-9)			µg/L										
603	2,4-Dichlorophenol (120-83-2)			µg/L										
610	2,5-Dichlorophenol (583-78-8)			µg/L										
611	2,6-Dichlorophenol (87-65-0)			µg/L										
620	3,4-Dichlorophenol (95-77-2)			µg/L										
604	2,4-Dimethylphenol (105-67-9)			µg/L										
605	2,4-Dinitrophenol (51-28-5)			µg/L										
609	2,5-Dinitrophenol (329-71-5)			µg/L										
594	2-Methyl-4-chlorophenol (1570-64-5)			µg/L										
615	3-Methyl-4-chlorophenol ( <i>para</i> -chloro- <i>meta</i> -cresol) (59-50-7)			µg/L										
593	2-Methyl-4,6-dinitrophenol (4,6-dinitro- <i>ortho</i> -cresol) (534-52-1)			µg/L										
596	2-Nitrophenol (88-75-5)			µg/L										
624	4-Nitrophenol (100-02-7)			µg/L										
368	Pentachlorophenol (87-86-5)			µg/L										
	Phenol (108-95-2)			µg/L										
600	2,3,4,6-Tetra-chlorophenol (58-90-2)			µg/L										
607	2,4,5-Trichloro-phenol (95-95-4)			µg/L										

**C-1 (continued). EFFLUENT MONITORING REPORT FORM for Outfall \_\_\_\_\_ (see instructions)**

Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)
608	2,4,6-Trichloro phenol (88-06-2)			µg/L										
<b>BASE/NEUTRAL COMPOUNDS</b>														
2	Acenaphthene (83-32-9)			µg/L										
4	Acenaphthylene (208-96-8)			µg/L										
42	Benzidine (92-87-5)			µg/L										
61	Bis(2-chloro-ethoxy) Methane (111-91-1)			µg/L										
62	Bis(2-chloroethyl) Ether (111-44-4)			µg/L										
63	Bis(2-chloroiso-propyl) Ether (102-60-1)			µg/L										
64	Bis(2-ethylhexyl) Phthalate (117-81-7)			µg/L										
621	4-Bromophenyl Phenyl Ether (101-55-3)			µg/L										

**C-1 (continued). EFFLUENT MONITORING REPORT FORM for Outfall \_\_\_\_\_ (see instructions)**

Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)
84	Butyl Benzyl Phthalate (85-68-7)			µg/L										
591	2-Chloro-naphthalene (91-58-7)			µg/L										
622	4-Chlorophenyl Phenyl Ether (7005-72-3)			µg/L										
617	3,3'-Dichloro-benzidine (91-94-1)			µg/L										
178	Diethyl Phthalate (84-66-2)			µg/L										
181	Dimethyl Phthalate (131-11-3)			µg/L										
167	Di- <i>n</i> -butyl Phthalate (84-74-2)			µg/L										
606	2,4-Dinitrotoluene (121-14-2)			µg/L										
612	2,6-Dinitrotoluene (606-20-2)			µg/L										
169	Di- <i>n</i> -octyl Phthalate (117-84-0)			µg/L										
574	1,2-Diphenyl-hydrazine (122-66-7)			µg/L										
240	Hexachloroethane (67-72-1)			µg/L										
253	Isophorone (78-59-1)			µg/L										
298	N-Nitrosodi- <i>n</i> -butylamine (924-16-3)			µg/L										
301	N-Nitroso-diethylamine (55-18-5)			µg/L										
302	N-Nitroso-dimethylamine (62-75-9)			µg/L										
304	N-Nitroso-diphenylamine (86-30-6)			µg/L										
299	N-Nitroso-di- <i>n</i> -propylamine (621-64-7)			µg/L										
306	N-Nitroso-pyrrolidine (930-55-2)			µg/L										
307	Naphthalene (91-20-3)			µg/L										
317	Nitrobenzene (98-95-3)			µg/L										

**C-1 (continued). EFFLUENT MONITORING REPORT FORM for Outfall \_\_\_\_\_ (see instructions)**

Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)
577	1,2,4-Trichloro-benzene (120-82-1)			µg/L										
234	Hexachloro-benzene (118-84-1)			µg/L										
236	Hexachloro-butadiene (87-68-3)			µg/L										
238	Hexachlorocyclo-pentadiene (77-47-4)			µg/L										
367	Pentachloro-benzene (608-93-5)			µg/L										
579	1,2,4,5-Tetra-chlorobenzene (95-94-3)			µg/L										
28	Anthracene (120-12-7)			µg/L										
43	Benzo( <i>a</i> )-anthracene (56-55-3)			µg/L										
44	Benzo( <i>a</i> )pyrene (50-32-8)			µg/L										
45	Benzo( <i>b</i> )-fluoranthene (205-99-2)			µg/L										
46	Benzo( <i>ghi</i> )perylene (191-24-2)			µg/L										
47	Benzo( <i>k</i> )-fluoranthene (207-08-9)			µg/L										
135	Chrysene (218-01-9)			µg/L										
172	Dibenzo( <i>a,h</i> )-anthracene (53-70-3)			µg/L										
213	Fluoranthene (206-44-0)			µg/L										
215	Fluorene (86-73-7)			µg/L										
244	Indeno-(1,2,3- <i>cd</i> )pyrene (193-39-5)			µg/L										
350	Phenanthrene (85-01-8)			µg/L										
403	Pyrene (129-00-0)			µg/L										
<b>PESTICIDES</b>														
16	Aldrin (309-00-2)			µg/L										

C-1 (continued). EFFLUENT MONITORING REPORT FORM for Outfall _____ (see instructions)														
Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)
56	<i>alpha</i> -BHC ( $\alpha$ -hexachloro-cyclohexane) (319-84-6)			$\mu\text{g/L}$										
51	<i>beta</i> -BHC ( $\beta$ -hexachloro-cyclohexane) (319-85-7)			$\mu\text{g/L}$										
57	<i>delta</i> -BHC ( $\delta$ -hexachloro-cyclohexane) (58-89-9)			$\mu\text{g/L}$										
58	<i>gamma</i> -BHC ( $\gamma$ -hexachloro-cyclohexane, Lindane) (319-86-8)			$\mu\text{g/L}$										
103	Chlordane (57-74-9)			$\mu\text{g/L}$										
629	4,4'-DDT (50-29-3)			$\mu\text{g/L}$										
628	4,4'-DDE (72-55-9)			$\mu\text{g/L}$										
627	4,4'-DDD (72-54-8)			$\mu\text{g/L}$										
176	Dieldrin (60-57-1)			$\mu\text{g/L}$										
194	<i>alpha</i> -Endosulfan (115-29-7)			$\mu\text{g/L}$										
195	<i>beta</i> -Endosulfan (115-29-7)			$\mu\text{g/L}$										
196	Endosulfan Sulfate (1031-07-8)			$\mu\text{g/L}$										
197	Endrin (72-20-8)			$\mu\text{g/L}$										
198	Endrin Aldehyde (7421-93-4)			$\mu\text{g/L}$										
232	Heptachlor (76-44-8)			$\mu\text{g/L}$										
233	Heptachlor epoxide (1024-57-3)			$\mu\text{g/L}$										
506	Toxaphene (8001-35-2)			$\mu\text{g/L}$										
122	Chlorpyrifos (2921-88-2)			$\mu\text{g/L}$										
350	Parathion (ethyl) (56-38-2)			$\mu\text{g/L}$										
351	Parathion (methyl) (298-00-0)			$\mu\text{g/L}$										
353	PCB-1016 (12674-11-2)			$\mu\text{g/L}$										

C-1 (continued). EFFLUENT MONITORING REPORT FORM for Outfall _____ (see instructions)														
Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)
355	PCB-1221 (11104-28-2)			µg/L										
356	PCB-1232 (11141-16-5)			µg/L										
357	PCB-1242 (53469-21-9)			µg/L										
359	PCB-1248 (12672-29-6)			µg/L										
361	PCB-1254 (11097-69-1)			µg/L										
363	PCB-1260 (11096-82-5)			µg/L										

Explain QC flags here:

**C-2. ADDITIONAL MONITORING FORM for OUTFALL \_\_\_\_\_ (see instructions)**

If you know or have reason to believe that any parameter listed in Tables 1 and 2 of the instructions is present in the discharge from this outfall at a concentration greater than 10µg/L AND you have not already provided a sample result in Table C-1, you must list the parameter below in Table C-2 and either provide at least one sample result for the parameter, check the "Intake" column if you expect the parameter is present in the discharge solely as a result of its presence in your intake water, OR check the "DMR" column if you have provided a sample result for the parameter in a recent Discharge Monitoring Report. Check the following box to indicate that you have evaluated the potential for these parameters being present in the discharge.

☐ Excluding those parameters that I have reported in either Table C-1 or Table C-2 below, I believe the parameters listed in Tables 1 and 2 of the instructions are either absent from this outfall's discharge or are present at concentrations less than 10 µg/L.

Table C-2 may also be used to report test results for any parameter that is tested more frequently than required by Table C-1.

Were all effluent samples properly preserved and handled, and are they representative of normal operating conditions?

☐ Yes ☐ No. If no, collect and test another discharge sample.

Parameter Code	Parameter Name (CAS No.)	Sample Result	QC Flags (explain below)	Units	Detection Limit (LOD)	LOQ	Analytical Method	Confirmed Organics (Y/N)	Sample Collection Date	Extraction Date	Analysis Date	Lab ID Number	Sample Type (Co/Gr)	DMR (✓)	Intake (✓)

Explain QC flags here:

**C-3. HAZARDOUS SUBSTANCES FORM for OUTFALL \_\_\_\_\_ (see instructions)**

If you know or have reason to believe that any substance listed in Table 3 of the instructions is present in the discharge from this outfall, you must list the substance below in Table C-3, provide any monitoring data that you may have, check the "Intake" column if you expect the parameter is present in the discharge solely as a result of its presence in your intake water, check the "DMR" column if you have provided a sample result for the substance in a recent Discharge Monitoring Report and explain why you believe the substance is present in the discharge. (NOTE: No analytical testing is required for Table 3 substances.) Check one of the following.

- ☐ I believe all substances in Table 3 of the instructions are absent from the discharge.
- ☐ I believe all substances in Table 3 of the instructions are absent from the discharge with the exception of those that I have listed below in Table C-3.

Parameter Code	Parameter Name	Sample Result	Units	DMR (✓)	Intake (✓)	Explanation of Presence in Discharge

Comments:

**C-4. DISCHARGE MONITORING REPORT (DMR) INFORMATION for OUTFALL \_\_\_\_\_ (see instructions)**

Check one or more of the following statements and provide the requested information to identify the Discharge Monitoring Report (DMR) data that best represents the current discharge from this outfall. At least one of the first two statements must be checked. Checking the third is optional.

☐ I believe that Discharge Monitoring Report data for the last 36 months are representative of the current effluent quality from this outfall.

☐ I believe that Discharge Monitoring Report data covering the period from \_\_\_\_\_ (day/month/year) to \_\_\_\_\_ (day/month/year) are representative of the current effluent quality from this outfall. The reason for my belief is as follows:

☐ Certain of the data previously submitted on Discharge Monitoring Reports are not representative of the current effluent quality from this outfall.

The data and the reasons for them not being representative are as follows: